

REMARKS

Claims 1-20 are now pending in the application. Claims 1-4, 6-8 and 20 stand rejected. Claims 5 and 9-19 are objected to. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

Examiner states Claim 16 is objected to because "the claim should be recited as being dependent on claim 11 to avoid lacking antecedent basis for the limitation 'the guide edge (20)'." Applicant has amended Claim 16, accordingly, and therefore believes it should now be in condition for allowance.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wolff et al. (U.S. Pat. No. 2,752,856). This rejection is respectfully traversed.

With regard to Claim 1, Applicant respectfully disagrees that a pump for liquid, such as the one disclosed in Wolff 856', can anticipate a fan for a gaseous medium as contemplated by Applicant's invention. Specifically, the apparatus described and taught by Wolff et al. teaches of a compact turbine, fuel pump for utilization with aircraft jet engines, and does not teach, anticipate, nor render obvious Applicant's invention for a radial fan utilized in a gaseous environment.

Furthermore, Wolff et al. fails to teach of a compression space which extends in both an axial as well as radial direction as taught by the present invention and claimed

in Claim 1. Applicant would like to respectfully point out to Examiner that the axial height of the volute in Wolff et al. at the right side of the apparatus is obviously the same height as at the left side, so the Volute 160 in Wolff et al. extends only in the radial direction, and not axially which is an essential element of pending Claim 1.

With regard to Claim 2, Applicant would like to define a reference surface in Figure 1 of Wolff et al. comprising the surface of the border area circumferencing the cup-shaped recess in which the wheel is placed. In this regard, Wolff et al. fails to disclose, teach or render obvious an extension of the volute in the direction beyond this surface as contemplated in the present invention.

Regarding Examiner's rejection to Claim 3, Applicant would like to respectfully point out that the end section 24 of Wolff et al. of housing 10 can be considered as a cover in the sense of the invention because it covers the space where the wheel is placed. But Wolff et al. fails to teach, anticipate or render obvious an expansion of the compression space into the cover as contemplated in Claim 3 of the present invention. It is crucial that the claim reads *into* and not *towards*, as the Examiner states in the present action. Since there is no disclosure or teaching of such features in Wolff, Applicant respectfully believes the rejections to Claims 1-3 based upon 35 U.S.C. § 102(b) should be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

Claims 4 and 6-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wolff et al. in view of Ueda et al. et al. (U.S. Pat. No. 4,231,706). This rejection is respectfully traversed.

With regard to Claims 4 and 6, Applicant would like to reiterate the reference to Wolff et al. teaches of a compact turbine, fuel pump for utilization with aircraft jet engines, and does not teach, anticipate, nor render obvious alone or in combination, Applicant's invention for a radial fan utilized in a gaseous environment. Furthermore, neither Wolff et al. nor Ueda et al. et al. teach of the limitations of a compression space which extends in both the radial direction and axially direction which is an essential element of Applicant's invention, in further view of the fact that Wolff et al. teaches of a fluid pump.

Regarding Examiner's objections to Claims 7 and 8 for the sake of brevity, Applicant would like to point out that the physical dynamics of fluid pumping is significantly different from those of gaseous blowing, and therefore it would not have been obvious to one skilled in the art at the time the invention was made to modify the pump of Wolff et al. to include blade angles as contemplated and taught by Applicant in the present invention. Furthermore, in view of all additional limitations to the claims in question such as the axial and radial compression spaces, Applicant respectfully believes this rejection is rendered moot.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wolff et al. in view of Seinfeld (U.S. Pat. No. 2,658,455). This rejection is respectfully traversed.

Specifically, Examiner makes reference to the balancing holes 18 of Seinfeld as being an obvious modification at the time the present invention was made in view of Wolff et al. for the purpose of equalizing pressure in the front and back of the supporting disk as commonly done in the art. Applicant would like to reiterate that the pump of

Wolff et al. is a fluid pumping unit, and therefore would not respond dynamically as would a gaseous blowing unit as taught by the present invention, and therefore modifications such as the addition of balancing holes would not create a similar end effect in such a fluid environment as it would in a gaseous one. Furthermore, the balancing holes of Seinfeld are positioned through the ribs, spaced between the vanes 14, and spiral outward along the plane of the annular member 16, and do not teach, anticipate, nor render obvious the bore holes of Applicant's invention which are radially spaced evenly around the root of the blower 23, and are not positioned between the blades 13 as taught by Seinfeld. In light of this crucial difference, Applicant respectfully believes this rejection has been overcome.

ALLOWABLE SUBJECT MATTER

The Examiner states that claims 5, 9-15 and 17-19 would be allowable if rewritten in independent form. Applicant has amended Claim 16 according to Examiner's comments in the outstanding Office Action. In view of the new comments herein, Applicant believes the remaining claims should be in condition for allowance as they stand. In the event that Examiner disagrees with the above remarks, Applicant respectfully reserves the right to subsequently amend these claims pursuant to Examiner's remarks contained in the present action.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests

that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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